AMENDMENTS TO THE CLAIMS

1. (Currently Amended) Method for noise reduction in an audio device whereby an electrical and/or digital signal which represents sound is routed simultaneously through:

a signal analysis path, and

a signal processing path wherein the signal amplification is individually controllable in specific frequency bands by attenuation values derived from the signal analysis path,

whereby the signal in the signal analysis path is routed simultaneously through:

a first detector which identifies the presence of speech indicators in the overall signal, and

a second detector which in a predefined number of frequency bands detects the modulation amplitude, and

where attenuation values in each of the predefined frequency bands are calculated based on the combined results of the first detector and the modulation amplitude in the specific frequency band detected by the second detector,

where the attenuation values in the predefined number of frequency bands are routed to the signal processing path in order to attenuate the signal level in corresponding frequency bands; and wherein

the attenuation values in each specific frequency band are calculated in the following way:

first attenuation values are calculated according to a first predefined transfer function between the modulation amplitude detected by the second detector and attenuation values whereby the first transfer function prescribes generally low attenuation values,

second attenuation values are calculated according to a second predefined transfer function between the modulation amplitude detected by the second detector and attenuation values whereby the second transfer function prescribes generally high attenuation values, and

fading between the first and the second calculated attenuation values is performed in response to the detected speech presence indicators from the first detector.

2. (Currently Amended) Method as claimed in claim 1 whereby the second detector calculates the modulation amplitude by tracking ~~peeks~~ peaks in the signal level and tracking the noise floor in the signal level and determines the distance between the overall level of the ~~peeks~~ peaks and the noise floor.

3. (Original) Method as claimed in claim 2 whereby the level of the noise floor in each frequency band is used to scale the calculated corresponding attenuation value, such that higher noise floor levels results in possible higher attenuation values.

4. (Cancelled)

5. (Original) Method as claimed in claim 1, whereby the first detector for detecting the presence of speech indicators use statistical information relating to possible correlation of modulation in different frequency bands.

6. (Currently Amended) Hearing aid with means for reducing noise in an input signal, the hearing aid including an input for receiving the input signal, and further comprising

a signal analysis path, and

a signal processing path ~~wherein means are provided to amplify~~having an amplification unit that amplifies the signal in frequency bands according to attenuation values derived from the signal analysis path, whereby the signal analysis path comprises:

a ~~first detector which has means for identifying~~a broad band speech detector that identifies the presence of speech indicators in the overall signal, and

a ~~second detector which has means~~band-specific analyzer ~~for spectral determination of~~ that determines a modulation amplitude of the signal across a spectrum of predefined frequency bands, and

where the signal analysis path ~~has means for calculating~~further comprises an attenuation calculator that calculates attenuation values in each of the predefined frequency bands based on the combined results of the ~~first~~ broad band speech detector and the modulation ~~amplitude~~ amplitudes in the ~~specific~~ predefined frequency ~~band~~ bands ~~detected by the second detector~~as determined by the band-specific analyzer, and

~~where further means are provided for routing~~a signal router that routs the calculated attenuation values ~~in the predefined number of frequency bands~~ to the signal processing path;

where the signal processing path further comprises a signal attenuator ~~in order to attenuate~~that attenuates the signal level based on the calculated attenuation levels.~~in frequency bands~~; and further wherein the attenuation calculator comprises:

a first attenuation calculator that calculates first attenuation values according to a first predefined transfer function between the modulation amplitude detected by the band-specific analyzer and attenuation values whereby the first transfer function prescribes generally low attenuation values,

a second attenuation calculator that calculates second attenuation values according to a second predefined transfer function between the modulation amplitude detected by the band-specific analzyer and attenuation values whereby the second transfer function prescribes generally high attenuation values,

a fader that fades between the first and the second calculated attenuation values in response to the detected speech presence indicators from the broad band speech detector.

7. (Currently Amended) Hearing aid as claimed in claim 6 whereby the ~~second detector~~band-specific analyzer further comprises ~~means for tracking peaks~~a signal peak tracker that tracks peaks in the signal level and ~~means for tracking~~noise floor signal tracker that tracks the noise floor in the signal level and ~~means for determining~~a peak-to-floor

determination unit that determines the distance between the overall level of the ~~peeks~~ peaks and the noise floor.

8. (Currently Amended) Hearing aid as claimed in claim 6 further comprising a scaling unit that scales an attenuation value in a frequency band ~~whereby the level of the~~based on a noise floor ~~in each~~level in that frequency band ~~is used in a scaling means for scaling the corresponding attenuation value~~, such that higher noise floor levels results in possible higher attenuation values.

9. (Cancelled)

10. (New) The method of claim1, wherein said second detector downsamples and converts the decomposed signal in each frequency band.

11. (New) The hearing aid of claim 6, said band-specific analyzer further comprising at least one frequency-specific downsampling and conversion unit, wherein said downsampling unit is disposed between said filter bank and said at least one frequency-specific modulation amplitude detector, and is frequency-specific to the same frequency band as its associated modulation detector.